

REMARKS

Claims 1-3 are pending in this application. Claim 1 is the only independent claim.

By this amendment, claims 1 and 2 are amended, and claims 4-6 are canceled without prejudice or disclaimer thereto.

Reconsideration in view of the above amendments and following remarks is respectfully solicited.

The Rejections under 35 U.S.C. §112, 2nd Paragraph are Moot

The Office Action reject claims 5 and 6 under 35 U.S.C. §112, 2nd paragraph. This rejection is respectfully traversed.

Applicant respectfully submits that the rejection of claims 5 and 6 is moot in light of the cancellations of claims 5 and 6.

Accordingly, withdrawal of the rejection of claims 5 and 6 under 35 U.S.C. §112, 2nd paragraph is respectfully solicited.

The Claims Define Patentable Subject Matter

The Office Action makes the following art rejections:

(1) claims 1-3 are rejected under 35 U.S.C. §103(a) as being unpatentable over by U.S. Patent No. 6,967,694 to Ninomiya et al. (hereafter Ninomiya) in view of U.S. Patent No. 6,437,657 to Jones (hereafter Jones); and

(2) claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Ninomiya and Jones and further in view of U.S. Patent No. 6,433,639 to Numanami et al. (hereafter Numanami).

These rejections are respectfully traversed.

Applicant respectfully submits that the combination of Ninomiya and Jones fail to teach or suggest each and every feature as set forth in independent claim 1.

The Examiner alleges that Ninomiya discloses a gain control and intermediate frequency amplifying circuit in element 4. (see Ninomiya, Fig. 1). Applicant respectfully disagrees with this allegation.

For example, Ninomiya's amplifier 4 is merely described as an amplifier for amplifying the signal. (see Ninomiya, col. 1, lines 30-31). However, Ninomiya specifically notes that in the tuner 2 the selected signal is controlled of gain [sic] and is issued as an intermediate frequency (IF). (see Ninomiya, col. 1, lines 47-48). As such, although Ninomiya's amplifier 4 controls the signal level by using a control signal from an AGC detector circuit 11, Ninomiya's amplifier 4 fails to be responsible for gain control.

In other words, Ninomiya specifically notes that it is the tuner 2, not the amplifier 4, that controls the gain of the intermediate signal. In contrast with Ninomiya, in the present invention a gain control unit and a separate intermediate frequency amplifying unit are connected to an output of the SAW filter. Ninomiya fails to disclose such a configuration, but instead merely discloses a simple amplifier 4 at the output of the SAW filter 3.

Furthermore, Ninomiya fails to disclose that the gain control unit includes a dual gate type MOSFET and the intermediate frequency amplifying unit includes a differential amplifying circuit.

Furthermore, the Examiner concedes that Ninomiya fails to disclose an output circuit connected to an output of the low pass filter for outputting balanced signals. (see Office Action, page 2). In fact, Ninomiya is completely silent about balance or unbalanced signals. However, in an attempt to show such a feature, the Examiner imports Jones.

Specifically, the Examiner alleges that Jones discloses an unbalance to balance converter, i.e., a differential amplifier, to enhance the efficiency and reduce susceptibility to noise. (see Office Action, page 3). The Examiner further alleges that it would have been obvious to connect an unbalanced/balance converter, as taught by Jones, to the low pass output of Ninomiya for the

purpose of enhancing the efficiency and reducing susceptibility to noise. Applicant respectfully disagrees with this allegation.

First of all, as noted above, Ninomiya is completely silent about unbalance/balance signals or that the low pass filter 10 is outputting unbalanced signals. Furthermore, nothing in Ninomiya even suggests that a conversion from unbalance to balance signals is desirable for noise reduction purposes. Ninomiya doesn't even mention noise in its disclosure, which is evidence that this is a factor not even recognized by Ninomiya.

Secondly, the output of Ninomiya's LPF 10 goes to an AGC detector 11 for determining the average of signal amplitude and also to an A/D converter 12 for converting an analog signal into a digital signal. However, nowhere does Ninomiya disclose such output as being unbalanced or that it is desirable to have balanced signals going into the A/D converter or the AGC detector. It appears that the Examiner is assuming that the output of the low pass filter is unbalance, although Ninomiya fails to make such a disclosure. Such an assumption is improper hindsight.

Furthermore, applicant submits that if an unbalance/balance converter was connected to the output of Ninomiya's LPF 10, as suggested by the Examiner, it would render the prior art invention being modified unsatisfactory for its intended purpose.

Further, applicant respectfully point out that the level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999). A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art" at the time the claimed invention was made" because the references relied upon teach all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See also *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000). Applicant submits that the Examiner has failed to provide an objective reason to combine the features in the manner as claimed.

Furthermore, applicant points out that if proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or

motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). As such, applicant submits that there fails to be proper motivation for combining the references because such a combination would render the art unsatisfactory for its intended purpose.

For at least the reasons noted above, applicant submits that the Examiner has failed to provide a *prima facie* case of obviousness for combining Jones with Ninomiya.

Applicant further submits that the claimed invention is distinguishable from the combination of Ninomiya, Jones and Numanami for at least the following reasons:

Applicant submits that Numanami fails to make up for the deficiencies found in both Ninomiya and Jones noted above. As such, the combination of Ninomiya, Jones and Numanami fails to teach or suggest each and every feature as set forth in the claimed invention.

To establish a *prima facie* case of Obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

Applicant respectfully submits that the examiner has failed to establish a *prima facie* case of obviousness at least in part because the examiner has failed to show how each and every feature is taught by the cited art.

Applicant further respectfully submits that the examiner has failed to show any suggestion or motivation from either the references themselves or in the knowledge generally available to one of ordinary skill in the art why it would be proper to combine the cited references. Instead, the Examiner is merely relying on improper hindsight.

Applicant respectfully submits that independent claim 1 is allowable over the combination of cited art for at least the reasons noted above.

As for each of the dependent claims not particularly discussed above, these claims are

also allowable for at least the reasons set forth above regarding their corresponding independent claims, and/or for the further features claimed therein.

Accordingly, withdrawal of the rejection of claims 1-4 under 35 U.S.C. §103(a) is respectfully solicited.

Conclusion

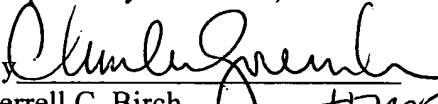
In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Carolyn T. Baumgardner (Reg. No. 41,345) at (703) 205-8000 **to schedule a Personal Interview.**

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17; particularly, the extension of time fees.

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Respectfully submitted,

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Attachments: Petition for Extension of Time